Geojournal of Tourism and Geosites
ISSN 2065-0817, E-ISSN 2065-1198

Year XVIII, vol. 61, no. 3, 2025, p.1910-1921
DOI 10.30892/gtg.61348-1558

SERVICE QUALITY OR SUSTAINABILITY? DETERMINING PRIORITIES FOR HOTEL BUSINESSES THROUGH BWM ANALYSIS

Abdullah ÜLKÜ [1*]

[1]Harran University, Tourism Faculty, Şanlıurfa, Turkey, abdullahulku@harran.edu.tr (A.U.)

Citation: Ülkü, A. (2025). Service quality or sustainability? Determining priorities for hotel businesses through BWM analysis. *Geojournal of Tourism and Geosites*, 61(3), 1910–1921. https://doi.org/10.30892/gtg.61348-1558

Abstract: Service quality and sustainability are not only strategically important for achieving competitive advantage in the hotel industry but also serve as critical indicators of long-term resilience, customer loyalty, and multi-dimensional sustainability encompassing environmental, social, cultural, and economic responsibilities in a rapidly evolving global tourism market. Service quality practices that focus on immediate customer satisfaction- such as rapid service or high-consumption amenities - can conflict with sustainability goals. These goals require long-term planning and efficient resource use. This creates a strategic tension in hospitality management. While academic interest in these two concepts has increased in recent years, the interaction between them and how different stakeholder groups prioritize these concepts have not been sufficiently investigated. In this context, the present study aims to determine the prioritization of service quality and sustainability dimensions among different stakeholder groups (hotel managers, academics and institution representatives) in the hotel industry. To this end, we used the Best Worst Method (BWM), one of the Multi-Criteria Decision Making (MCDM) techniques known for its simplicity and consistency. The data were collected through interviews with a total of 18 experts. The findings revealed that, across all stakeholder groups, service quality dimensions were prioritized over sustainability dimensions. Hotel managers emphasized operational efficiency and environmental sustainability. Furthermore, while academicians focused on reliability and adopted a more balanced view of sustainability, institution representatives prioritized tangible aspects of service quality. Social and cultural sustainability dimensions were consistently assigned lower importance by hotel managers and institution representatives. The priority given to service quality highlights the short-term and performance-oriented mentality in the hotel industry. The limited emphasis placed on social and cultural sustainability, particularly among practitioners, suggests that these dimensions are still not sufficiently considered in strategic decision-making processes. Taken together, the results of the present study highlight the varying evaluation patterns among stakeholder groups and underscore the need for a more holistic perspective on managing service quality and sustainability in hotel businesses.

Keywords: Service quality, sustainability, hotel industry, multi-criteria decision making, Best Worst Method (BWM)

* * * * * *

INTRODUCTION

Service quality, one of the fundamental criteria of the tourism industry, was consistently reported to have a strong impact on customer loyalty and satisfaction (Parasuraman et al., 1988; Ladhari, 2009). Due to responsibilities to the environment and society, as well as customers' changing expectations and demands, hotel businesses face various service quality management challenges (Munawaroh et al., 2024; Shyju et al., 2021). To address these complexities, the SERVQUAL model is widely adopted as a robust framework for evaluating the dimensions of service quality (Smith, 1995; Bhattacharya et al., 2023). In an environment where interest in service quality is increasing, the integration of sustainability into business strategies has become increasingly important; this approach not only enables tourism enterprises to fulfill their environmental responsibilities, but also serves as an effective means of gaining competitive advantage (Lichtenthaler, 2022; Michailidou et al., 2015). Overall, while sustainability offers strategic benefits, its implementation may involve certain trade-offs, particularly in relation to perceived service quality, leading to various complexities (Seyfi et al., 2025).

The idea that sustainability dimensions always positively contribute to customer satisfaction may be misleading, as emphasizing these practices could result in a decline in service quality (Baratta & Simeoni, 2021; Perramon et al., 2022). This tension is particularly evident considering that high tourist expectations for service quality may not align with the sustainability objectives of hotel businesses, as sustainable practices—particularly those involving water and energy conservation—frequently require compromises in the quest for comfort (Pirani & Arafat, 2016; Oloyede et al., 2024). As a result, hotel businesses are required to strike a balance between long-term sustainability practices and short-term service quality expectations (Christofi et al., 2022; Pirani & Arafat, 2016; Sholeha & Sumarmi, 2025; Tourais & Videira, 2024).

To date, the interaction and potential contradictions between service quality and sustainability have not been thoroughly examined in the literature. Previous studies predominantly analyzed these two concepts in isolation (Oliveras-Villanueva et al., 2020; Zhuk & Bukhta, 2023). Furthermore, economic, cultural, and social dimensions of sustainability have received

* Corresponding author

limited scholarly attention in sustainability-related research (Boswell, 2023; Njoroge et al., 2020; Tavakoli & Tumer, 2024). In addition, while available studies primarily reflect the views of hotel managers (Fatima & Elbanna, 2023; Oliveras-Villanueva et al., 2020; Zhuk & Bukhta, 2023), the views of academics or industry representatives remain underrepresented. To the best of our knowledge, to date, none of the previous studies examined how different stakeholders prioritize sustainability and service quality dimensions. However, determining the prioritization by various stakeholders could provide a new and holistic approach to tourism literature which includes studies on sustainability and service quality (Boswell, 2023; Christofi et al., 2022; Fatima & Elbanna, 2023; Oliveras-Villanueva et al., 2020). Taking this into account, and seeking to bridge the aforementioned gap in the literature, the present study provides a comparative analysis of multiple stakeholder groups (managers, academics, and public institution representatives), offering a holistic view of service quality and sustainability trade-offs in the hotel industry. By demonstrating how these concepts are perceived across a wide range of perspectives, the approach we use goes further than previous studies that focused solely on specific stakeholder groups.

Upon the Resource-Based View (RBV), sustainability practices are regarded as strategic resources capable of generating long-term competitive advantage. However, these practices may entail additional costs or potentially compromise service quality (Lichtenthaler, 2022; Perramon et al., 2022). Accordingly, in the present study, we use a multi-theoretical approach to evaluate the balance between benefits and costs. One of the theories the present study relies on is Stakeholder Theory (Freeman, 2010), which argues that businesses should consider interests of all stakeholders, not only shareholders, but also employees, customers, and local people. Furthermore, Institutional Theory (DiMaggio & Powell, 1983) posits that businesses are influenced by social and cultural pressures, in addition to economic forces. As a result, stakeholder priorities concerning service quality and sustainability may vary across different stakeholder types and institutional settings. This approach reflects Triple Bottom Line (TBL) approach framework (Elkington, 1997), which evaluates business performance across economic, environmental and social dimensions. In addition, Contingency Theory (Lawrence & Lorsch, 1967; Donaldson, 2001) emphasizes situational nature decision-making, highlighting that the appropriateness of any decision depends on internal and external contingencies. Accordingly, in the present study, we used the Best–Worst Method (BWM) to systematically identify and compare stakeholder priorities.

More specifically, the core research problem addressed in the present study is understanding how different groups perceive the dimensions of sustainability and service quality. The major research question asked in this research is as follows: "How are priorities concerning sustainability and service quality dimensions shaped among different stakeholder groups in hotel businesses?" Seeking to answer this question, the study aims to contribute the gap identified in the literature. We analyze the relationship between sustainability and service through a holistic view by incorporating the perspectives of diverse stakeholder groups. In contrast to previous research that predominantly relied on traditional multi-criteria decision-making methods such as AHP and TOPSIS, in the present study, we adopted the Best Worst Method (BWM) analysis, which offers lower cognitive demand and improved consistency compared to traditional techniques (Corrente et al., 2024; Johny et al., 2025; Rezaei, 2015; Roshanvaran et al., 2025; Yildirim & Sisman, 2025; Vatankhah et al., 2023). This methodological approach enables a refined analysis of the sustainability and service quality nexus and offers strategic recommendations to improve the long-term competitiveness of hotel businesses. The results are expected to guide hotel managers in balancing short-term operational goals with long-term sustainability practices, as well as inform public institutions on areas where policy support and stakeholder alignment are most needed.

LITERATURE REVIEW

In the literature, service quality is considered one of the success criteria for hotel businesses as it significantly shapes the customer experience (Munawaroh et al., 2024). Considering that hotel services involve direct customer interaction, the way quality is perceived becomes particularly important (Shyju et al., 2021). Therefore, effective service quality management is associated with gaining a sustainable competitive advantage (Fam et al., 2021; Shams et al., 2021). As core elements of the SERVQUAL model, assurance and reliability were previously reported to be strongly linked to increased customer trust and satisfaction (Abdullah et al., 2022; Adzinyo et al., 2024; Hoo et al., 2024; Ranatunga et al., 2022).

However, the impact of each SERVQUAL dimension may vary in magnitude. For instance, responsiveness may emerge as a service element that needs improvement (Bhattacharya et al., 2023). This variation may be attributed to the cultural sensitivity of the SERVQUAL dimensions (Ladhari, 2009; Smith, 1995). Empirical evidence from the Himalayan region supports the notion that SERVQUAL dimensions exhibit regional variability (Bhattacharya et al., 2023). However, in today's hospitality industry, where sustainability is increasingly coming to the forefront, an exclusive focus on service quality is no longer considered to be sufficient (Blanco-Moreno et al., 2025). Sustainability has become a strategic imperative for enhancing corporate image and driving financial performance (Stombelli, 2020; Su & Chen, 2020). Despite being primarily associated with environmental practices, sustainability strategies can also generate economic, social and cultural benefits for hotel businesses (Pereira et al., 2021; Rasel, 2024; Remenyik et al., 2025). Accordingly, it may be necessary to explore other sustainability dimensions (economic, social and cultural) to understand these benefits (Boswell, 2023; Tavakoli & Tumer, 2024; Yang et al., 2020). Sustainability can generate both economic returns and non-financial benefits, thereby positively impacting various dimensions of hotel performance (Khalil et al., 2024; Koch et al., 2020; Preziosi et al., 2022). However, the implementation of sustainability practices does not always lead to improvements in quest satisfaction.

For instance, water and energy conservation efforts in hotels may compromise guest comfort and reduce overall satisfaction (Baratta & Simeoni, 2021). At this point, a critical strategic decision-making area for hotel businesses is attaining the balance between the multifaceted benefits of sustainability and the challenges encountered during its implementation (Du et al., 2025). As service-driven organizations, hotels that prioritize social and environmental sensitivity may gain a competitive

advantage by aligning with shifting consumer values (Fatima & Elbanna, 2023). Sustainability practices are now considered as critical as service quality in achieving long-term customer loyalty and market competitiveness (Josimović et al., 2025). Yet, a comprehensive evaluation of these strategic trade-offs requires theoretical frameworks capable of explaining how organizations perceive, prioritize, and operationalize sustainability alongside service quality (Rinomhota et al., 2025).

Furthermore, although sustainability practices are widely considered to be valuable resources under Resource-Based View (RBV) framework, they may simultaneously increase operational burdens (Lichtenthaler, 2022) and adversely affect service performance (Perramon et al., 2022). The Stakeholder Theory posits that achieving success in the field of sustainability requires businesses to consider the perspectives of a broad range of stakeholders, not just shareholders (Freeman, 2010). In line with this principle, in the present study, we employed a methodology that incorporates stakeholder diversity by gathering the views of various stakeholder groups on both service quality and sustainability. Furthermore, as highlighted by Institutional Theory, businesses are influenced not only by economic forces, but also by cultural and social pressures (DiMaggio & Powell, 1983). What this suggests is that hotel businesses are subject to institutional demands and pressures related to both sustainability and service quality. The priorities of different stakeholder groups in these domains may widely vary depending on the institutional characteristics and pressures that shape their expectations. Furthermore, the Triple Bottom Line (TBL) approach posits that business performance should be evaluated not solely on economic outcomes, but also on relevant social and environmental dimensions (Elkington, 1997). This framework provides a comprehensive perspective on evaluating sustainability practices. The present study seeks to apply the TBL framework in practice by offering empirical insights into the sustainability-related perspectives of stakeholder groups actively engaged in the tourism industry.

According to Contingency Theory, which is one of the theoretical cornerstones of the present study, there is no universally optimal approach to decision-making or strategy formulation; rather, the effectiveness of a given method depends on situational factors and stakeholder expectations (Lawrence & Lorsch, 1967; Donaldson, 2001). Said differently, strategic priorities may vary depending on contextual conditions, the expectations of relevant stakeholders, and environmental uncertainties. Using employing the Best-Worst Method (BWM), the present study seeks to capture these variations, thereby reinforcing a situationally adaptive perspective on strategic decision-making within the tourism and hotel industry.

While sustainability and service quality are frequently regarded as distinct concepts (Oliveras-Villanueva et al., 2020; Yuliawati et al., 2025; Zhuk & Bukhta, 2023), recent research suggests that these two dimensions—traditionally seen as short-term and long-term, respectively—can influence and even complement one another (Christofi et al., 2022; Kwan, 2025; Tourais & Videira, 2024). Typically associated with immediate customer satisfaction, service quality may intersect with sustainability goals aimed at long-term strategic outcomes (Narendratama & Wijoyo, 2025).

However, some studies argued that these concepts may be at odds. For instance, Perramon et al. (2022) contend that businesses that overemphasize service quality risk escalating resource consumption, thus potentially neglecting sustainability goals. Similarly, Oloyede et al. (2024) found that, in hotel settings, offering larger portion sizes in food services enhanced customer satisfaction, but also resulted in significant food waste, thereby undermining sustainability efforts. These conflicting dynamics highlight the urgent need for hotel businesses to strike a balance between service quality and sustainability (Pirani & Arafat, 2016; Sholeha & Sumarmi, 2025). Overall, there is a broad scholarly consensus that service quality can serve as a strategic tool to support and reinforce sustainability efforts (Chaudhary & Dey, 2021). For long-term success and competitive advantage, businesses are encouraged to implement both elements in an integrated manner (Lichtenthaler, 2022; Preziosi et al., 2022; Seidel et al., 2021; Yu et al., 2024). In the tourism industry, aligning sustainability practices with service quality initiatives was previously argued to be capable of enhancing businesses' brand image and providing a distinct competitive edge (Fatima & Elbanna, 2023). Moreover, effective service quality management was reported to not only contribute to customer satisfaction, but also support sustainability by creating operational efficiencies and cost advantages (Pereira-Moliner et al., 2016). To date, most of the previous studies have examined service quality and sustainability as separate constructs, thereby overlooking the interactions between them (Fatima & Elbanna, 2023; Oliveras-Villanueva et al., 2020; Zhuk & Bukhta, 2023).

Accordingly, relevant research integrating the analysis of these two dimensions remains scarce, which results in the lack of integrative and comparative evaluations reflecting how service quality and all sustainability dimensions (not just environmental) are prioritized by different actors within the industry. This gap is particularly evident in the hotel industry, where the prioritization of these elements remains insufficiently explored (Perramon et al., 2022; Oloyede et al., 2024). Another notable gap is the narrow emphasis on specifically environmental sustainability. The interrelationship between other dimensions of sustainability—such as social and economic—and service quality also remains underexplored in the literature.

In terms of previously used methodologies, several recent studies employed advanced decision-making approaches. For example, Wang & Nguyen (2022) and Assad et al. (2024) employed multi-criteria decision-making techniques to evaluate sustainability priorities in hospitality. In another relevant study, Perramon et al. (2022) provided empirical insights into the joint effects of service quality and environmental practices. However, these studies predominantly focused on single stakeholder groups or emphasized specific sustainability aspects without adopting a comparative, multi-stakeholder perspective. Seeking to address these gaps, the present study aims to investigate how different stakeholder groups—including hotel managers, academics, and tourism-related institution representatives—prioritize the dimensions of service quality and sustainability in the hotel industry. To this end, we use the Best Worst Method (BWM) as a decision-making framework. Our ultimate goal is to develop a holistic understanding of how service quality and sustainability are evaluated in the hotel industry context and to provide strategic contributions to sectoral decision-making processes.

An important issue that warrants further attention is the complexity and potential inconsistency associated with traditional multi-criteria decision-making (MCDM) methods such as AHP and TOPSIS. While widely used, these

approaches frequently involve high computational complexity and may lead to inconsistencies in judgments (Amiri et al., 2021; Kumar & Pamucar, 2025; Opricovic & Tzeng, 2007; Wei et al., 2025). Despite these limitations, MCDM techniques remain effective for prioritizing sustainability practices (Tian et al., 2022). Yet, in recent years, more innovative and streamlined approaches have emerged. Among them, the Best Worst Method (BWM) has gained traction for its simplicity, consistency, and efficiency (Garabinović et al., 2021; Roshanvaran et al., 2025; Wang & Nguyen, 2022; Yildirim & Sisman, 2025). The BWM allows decision-makers to achieve greater consistency with fewer comparisons by selecting only the best and worst criteria (Corrente et al., 2024; Johny et al., 2025; Rezaei, 2015). Accordingly, in the present study, we adopt the BWM to ensure higher decision consistency (Vatankhah et al., 2023) and to analyze the perspectives of different participant groups in a structured comparative manner. A comparison of multi-criteria decision-making methods used in previous research (Amiri et al., 2021; Opricovic & Tzeng, 2007; Vagiona, 2021) is provided in Table 1.

Table 1. Comparison of multi-criteria decision-making methods

Method	Calculation time	Simplicity	Mathematical operations	Reliability	Data type
BWM	Low	Simple	Medium	High	Quantitative
AHP	Very high	Very critical	Maximum	Weak	Mixed
TOPSIS	Medium	Moderately critical	Medium	Medium	Quantitative
VIKOR	Low	Simple	Medium	Medium	Quantitative
ELECTRE	High	Moderately critical	Medium	Medium	Mixed
PROMETHEE	High	Moderately critical	Medium	Medium	Mixed

MATERIALS AND METHODS

The study aims to understand how decision-makers prioritize service quality and sustainability dimensions for hotel businesses using a holistic and novel approach. To this end, several groups of relevant stakeholders were interviewed. These included managers from international chain hotels (6 individuals), academicians specializing in hotel management, sustainability, and service quality (6 individuals), destination management organization managers (3 individuals), managers of tourist guide chambers (2 individuals), and a travel agency association manager (1 individual). The limited number of participants was a deliberate methodological choice, as the Best Worst Method (BWM) is particularly suitable for studies involving a small group of experts. BWM enables high decision consistency and allows for in-depth analysis with fewer comparisons (Rezaei, 2015). Service quality dimensions were adopted from the SERVQUAL scale, while sustainability dimensions were developed through a literature review. Environmental, social, cultural, and economic sustainability dimensions were structured based on hotel and business-oriented academic studies (Table 2). The reason for selecting these four dimensions was that sustainability in tourism and hospitality has a multi-dimensional structure and requires a balanced development in all these areas for long-term success.

Best Worst Method (BWM) analysis was employed; as this analysis requires decision-makers to make comparisons solely based on the best and worst criteria, it can be implemented with fewer participants and provides high consistency compared to other multi-criteria decision-making methods (Rezaei, 2015). The interviews were conducted both in person and via online video meetings. All relevant information about BWM was also provided during the interviews.

Table 2. Service quality and sustainability criteria adopted in the study

Criteria	Explanation	Reference
C_1 Tangibles	Physical elements of the service-providing establishment include modern equipment, cleanliness of facilities, employee appearance, and quality of materials used.	(Parasuraman et al., 1988; Smith, 1995)
C_2 Reliability	Accurate, complete, and timely delivery of the promised service to customers. Minimizing errors and providing service that customers consistently trust.	(Parasuraman et al., 1988; Smith, 1995)
C_3 Responsiveness	Employees' ability to respond promptly and willingly to customer requests; capacity to assist customers even in emergency situations.	(Parasuraman et al., 1988; Smith, 1995)
C_4 Assurance	Employees' knowledge, courtesy, and ability to instill confidence in customers; ensuring customers feel secure during service interactions.	(Parasuraman et al., 1988; Smith, 1995)
C_5 Empathy	Individualized attention provided by the establishment to its customers, understanding their specific needs, and being customer-friendly regarding working hours, communication, etc.	(Parasuraman et al., 1988; Smith, 1995)
C_6 Environmental sustainability	Practices focusing on reducing energy consumption, water usage, waste management, and carbon emissions. Efficient use of resources without harming the environment.	Campos et al., 2024; Michailidou et al., 2015; Prakash et al., 2023)
C_7 Social sustainability	Social responsibility practices including employee rights, occupational health, community contribution, and the welfare of local people.	(Pereira et al., 2021; Salama et al., 2024; Timur & Timur, 2016)
C_8 Cultural sustainability	Respect for local culture, traditions, and heritage; supporting cultural events.	(Boswell, 2023; Lee & Chhabra, 2015; Tavakoli & Tumer, 2024)
C_9 Economic sustainability	Financial stability, profitability, occupancy rate, business volume, and long-term economic contributions.	(Njoroge et al., 2020; Pratt et al., 2018; Vasilakakis et al., 2023)

Best Worst Method (BWM) steps are as follows:

Step 1. The criteria affecting the decision problem are determined. When a matrix related to the decision criteria is

created in a decision problem, the criteria matrix formed for pairwise comparison of the criteria can be represented as shown in Equation 1 (Hasan et al., 2022).

$$A = \begin{matrix} C_1 \\ C_2 \\ \vdots \\ C_n \end{matrix} \begin{matrix} \begin{matrix} C_1 & C_2 & \cdots & C_n \end{matrix} \\ \begin{pmatrix} o_{11} & o_{12} & \cdots & o_{1n} \\ o_{21} & o_{22} & \cdots & o_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ o_{n1} & o_{n2} & \cdots & o_{nn} \end{pmatrix} \end{matrix} \quad (1)$$

Step 2. Select the best criterion (C_B) and the worst criterion (C_W) from the set of criteria.

Step 3. The pairwise comparison between the best criterion (C_B) and all other criteria is performed resulting best-to-others (O_B) vector as shown in Equation 2 as (Hasan et al., 2022)

$$O_B = (o_{B1}, o_{B2}, o_{B3}, \ldots, o_{Bn}), \quad (2)$$

where, $o_{Bj}; o_{Bj} \geq 1, j = 1,2,\ldots,n$ represents the degree of preference regarding the best criterion C_B with other criterion $C_j, j \neq B$. At this stage, the decision-maker uses the 1-9 scale in Table 2 to determine the priority of the most important criterion over the other criteria through pairwise comparisons.

Step 4. The others-to-worst (O_W) vector presenting the pairwise comparison of preferences between all criteria and the worst criterion (C_W) is given in Equation 3 as (Hasan et al., 2022)

$$O_W = (o_{1W}, o_{2W}, o_{3W}, \ldots, o_{nW})^T, \quad (3)$$

where, $o_{jW}; o_{jW} \geq 1, j = 1,2,\ldots,n, j \neq W$ represents the degree of preference regarding the worst criterion C_W with other criteria C_j. At this stage, the decision-maker uses the 1-9 scale in Table 3 to determine the priority of the least important criterion compared to the other criteria through pairwise comparisons.

Table 3. Pairwise comparison scale and descriptions

Numerical Value	Judgmental statements used in the comparison of criteria
1	Equal importance
3	Moderately Important
5	Important
7	Very important
9	Extremely Important
2,3,4,6	Intermediate values

Step 5. Calculate the weights of criteria by formulating an optimization model. To calculate the weights for ranking of criteria, the optimal weights must satisfy $W_B / W_j = o_{Bj}$ and $W_j / W_W = o_{jW}$. Thus, the objective is to minimize the absolute maximum difference of $| W_B / W_j - o_{Bj} |$ and $| W_j / W_W - o_{jW} |$. Then, a min-max optimization model is formulated as follows (Hasan et al., 2022):

Model 1:

$$\begin{aligned} \underset{j}{\text{MinMax}} \quad & \{| W_B / W_j - o_{Bj} |, | W_j / W_W - o_{jW} |\} \\ \text{subject to} \quad & \textstyle\sum_j \quad W_j = 1, W_j \geq 0, \forall j = 1,2,\ldots,n. \end{aligned} \quad (4)$$

Here, W_B and W_W are the weights of best and worst criterion, respectively. The weight of criterion C_j is represented by W_j. The linear programming model of model 1 is transformed as (Hasan et al., 2022)

Model 2:

$$\begin{aligned} \text{Min} \quad & \xi \\ \text{subject to} \quad & | W_B - W_j \times o_{Bj} | \leq \xi \\ & | W_j - W_W \times o_{jW} | \leq \xi \\ & \textstyle\sum_j \quad W_j = 1, W_j \geq 0. \end{aligned} \quad (5)$$

The optimal values of ξ are utilized to determine the consistency ratio. A comparison is said to be fully consistent, when $o_{Bj} \times o_{jW} = o_{BW} \forall$.

Step 6. Determining the consistency ratio of the pairwise comparisons. This step also reflects the usability of the method. The consistency ratio is calculated using the minimum ξ^* value obtained from the model and the consistency index provided in Table 4. A low consistency ratio indicates that the pairwise comparisons are reliable and the results are valid for decision-making (Rezaei, 2015).

Table 4. Consistency index (CI)

o_{BW}	1	2	3	4	5	6	7	8	9
CI(max ξ)	0.00	0.44	1	1.63	2.30	3	3.73	4.47	5.23

The consistency ratio (CR) is calculated as follows (Rezaei, 2015):

$$ConsistencyRatio = \frac{\xi^*}{ConsistencyIndex},$$

The consistency ratio (CR) takes a value between 0 and 1. The smaller the consistency ratio, the more reliable the comparison results are. A ratio of less than 0.10 is an acceptable ratio.

RESULTS

Table 5 presents the findings of all decision-makers' evaluations, while Table 6 displays their respective rankings. According to the evaluations of managers in international chain hotels, service quality criteria (C1–C5) generally stood out.

Table 5. The importance weights and consistency of criteria

Managers in international chain hotels										
Decision-maker	**C_1**	**C_2**	**C_3**	**C_4**	**C_5**	**C_6**	**C_7**	**C_8**	**C_9**	**CR**
Dm_1	0.1324	0.1035	0.1324	0.1035	0.1180	0.1324	0.0503	0.1180	0.1095	0.0169
Dm_2	0.1372	0.1030	0.1546	0.1030	0.1372	0.1642	0.1642	0.0566	0.0801	0.0184
Dm_3	0.1201	0.1201	0.1201	0.1201	0.1334	0.1636	0.0545	0.1090	0.1090	0.0128
Dm_4	0.1297	0.1668	0.1486	0.1297	0.1668	0.1386	0.0454	0.1127	0.1620	0.0171
Dm_5	0.1297	0.1606	0.1491	0.1168	0.1297	0.1133	0.1006	0.0412	0.1591	0.0184
Dm_6	0.1386	0.1732	0.1589	0.0842	0.0497	0.1184	0.1184	0.1184	0.1402	0.0164
Mean W_j	*0.1313*	*0.1379*	*0.1473*	*0.1095*	*0.1225*	*0.1384*	*0.0889*	*0.0926*	*0.1267*	*0.0167*
Academicians										
Decision-maker	**C_1**	**C_2**	**C_3**	**C_4**	**C_5**	**C_6**	**C_7**	**C_8**	**C_9**	**CR**
Dm_1	0.0297	0.1485	0.1188	0.1485	0.1485	0.1782	0.2079	0.2079	0.2376	0.0077
Dm_2	0.2333	0.1121	0.1121	0.1121	0.1121	0.1682	0.1402	0.1402	0.0697	0.0595
Dm_3	0.2009	0.1850	0.1850	0.1471	0.0575	0.1020	0.1020	0.1020	0.1020	0.0155
Dm_4	0.2494	0.1878	0.0442	0.0883	0.1325	0.1104	0.1325	0.1546	0.1002	0.0154
Dm_5	0.1438	0.2227	0.1544	0.0889	0.0457	0.1111	0.1111	0.0897	0.1330	0.0163
Dm_6	0.0475	0.1476	0.1180	0.1476	0.0738	0.2780	0.1084	0.1084	0.0710	0.0124
Mean W_j	*0.1508*	*0.1673*	*0.1221*	*0.1221*	*0.0950*	*0.1580*	*0.1337*	*0.1338*	*0.1189*	*0.0211*
Managers of tourism-related organizations										
Decision-maker	**C_1**	**C_2**	**C_3**	**C_4**	**C_5**	**C_6**	**C_7**	**C_8**	**C_9**	**CR**
Dm_1	0.1192	0.1949	0.1511	0.1192	0.1192	0.0648	0.1357	0.1192	0.1370	0.0171
Dm_2	0.1897	0.1641	0.1897	0.1282	0.1487	0.0598	0.0507	0.0345	0.0345	0.0227
Dm_3	0.1724	0.1562	0.1659	0.1562	0.1753	0.1368	0.0438	0.0636	0.1300	0.0177
Dm_4	0.1374	0.1009	0.1181	0.1066	0.1232	0.0674	0.0983	0.0968	0.1513	0.0157
Dm_5	0.1443	0.1247	0.1046	0.1443	0.1592	0.1223	0.0488	0.1223	0.1294	0.0158
Dm_6	0.1492	0.1143	0.0964	0.1143	0.1333	0.1203	0.0976	0.0422	0.1323	0.0189
Mean W_j	*0.1520*	*0.1425*	*0.1376*	*0.1281*	*0.1432*	*0.0952*	*0.0791*	*0.0798*	*0.1191*	*0.0179*

Table 6. Importance weights of the criteria

Managers in international chain hotels			
Rank	**Criterion**	**Criteria Description**	**Mean W_j**
1	C3	Responsiveness – Speed and willingness to help customers	0.1473
2	C6	Environmental Sustainability – Energy, waste, carbon management	0.1384
3	C2	Reliability – Service accuracy, consistency, trust	0.1379
4	C1	Tangibles – Physical appearance, cleanliness, equipment quality	0.1313
5	C9	Economic Sustainability – Financial stability, profitability	0.1267
6	C5	Empathy – Personalized attention, understanding customer needs	0.1225
7	C4	Assurance – Staff knowledge, courtesy, ability to inspire trust	0.1095
8	C8	Cultural Sustainability – Respect for local culture and heritage	0.0926
9	C7	Social Sustainability – Employee rights, community contribution	0.0889
Academicians			
Rank	**Criterion**	**Criteria Description**	**Mean W_j**
1	C2	Reliability – Service accuracy, consistency, trust	0.1673
2	C6	Environmental Sustainability – Energy, waste, carbon management	0.1580
3	C1	Tangibles – Physical appearance, cleanliness, equipment quality	0.1508
4	C8	Cultural Sustainability – Respect for local culture and heritage	0.1338
5	C7	Social Sustainability – Employee rights, community contribution	0.1337
6	C3	Responsiveness – Speed and willingness to help customers	0.1221
7	C4	Assurance – Staff knowledge, courtesy, ability to inspire trust	0.1221
8	C9	Economic Sustainability – Financial stability, profitability	0.1189
9	C5	Empathy – Personalized attention, understanding customer needs	0.0950
Managers of tourism-related organizations			
Rank	**Criterion**	**Criteria Description**	**Mean W_j**
1	C1	Tangibles – Physical appearance, cleanliness, equipment quality	0.1520
2	C5	Empathy – Personalized attention, understanding customer needs	0.1432
3	C2	Reliability – Service accuracy, consistency, trust	0.1425
4	C3	Responsiveness – Speed and willingness to help customers	0.1376
5	C4	Assurance – Staff knowledge, courtesy, ability to inspire trust	0.1281
6	C9	Economic Sustainability – Financial stability, profitability	0.1191
7	C6	Environmental Sustainability – Energy, waste, carbon management	0.0952
8	C8	Cultural Sustainability – Respect for local culture and heritage	0.0798
9	C7	Social Sustainability – Employee rights, community contribution	0.0791

Hotel managers considered the criteria of "responsiveness (C3; 0.1473)", "environmental sustainability (C6; 0.1384)" and "reliability (C2; 0.1379)" as being of similar importance. These results suggest that managers evaluate both operational efficiency and environmental sustainability together. The prioritization of environmental sustainability as a secondary criterion suggests its growing importance on the managerial level.

Furthermore, the average value assigned to social (C7; 0.0889) and cultural sustainability (C8; 0.0926) criteria were comparatively lower than others. This finding suggests that managers have not prioritized elements such as social contribution and cultural heritage in their decision-making processes. These findings indicate that hotel managers adopt a service approach focused on customer satisfaction and environmental sensitivity, while social factors receive comparatively less attention. Moreover, the average consistency rate observed in this group was "0.0167", indicating that decision-makers exhibited high-level stable preferences.

In addition, academicians evaluated the "reliability (C2; 0.1673)" criterion with the highest mean weight. The academic perspective considered consistency, accuracy and the level of meeting expectations in service delivery fundamental aspects of service quality. "Environmental sustainability (C6, 0.1580)" also emerged as an important criterion recognized by academics. Taken together, these findings indicate that awareness and responsiveness towards sustainability issues are high in academic circles. Consequently, the academic perspective considers service quality and environmental impact as a primary evaluation criterion. Conversely, the academic group evaluated the "empathy (C5; 0.0950)" criterion the lowest. This finding suggests that academics place less emphasis on interpersonal interactions and emotional closeness as compared to other service delivery dimensions. The academic approach is predominantly science-driven and rooted in systematic principles. According to our results, this group assigned greater importance to environmental sensitivity and service reliability. The average consistency rate for this group amounted to 0.0211, indicating a high level of decision-making stability and rational evaluation.

Furthermore, the interviewed representatives working in public and private sector tourism-related institutions assigned the highest values to service quality dimensions. Specifically, the "tangibles (C1, 0.1520)" criterion received the highest weight. This finding suggests that institutional representatives place a greater emphasis on observable and measurable external factors when evaluating service quality. Furthermore, in this group of stakeholders, "empathy (C5, 0.1432)" and "reliability (C2, 0.1425)" received comparable weights. Representatives working in public and private sector tourism-related institutions also ranked "social sustainability" (C7; 0.0791) as the least prioritized dimension. Taken together, results suggest that social inclusion, social justice, and employee rights remain secondary considerations in practical service evaluations. The fact that the social responsibility criterion was not sufficiently prominent indicates the need for policy development and awareness raising in this area. The average consistency rate of this group was "0.0179", indicating that results with high internal consistency are produced, similar to other groups.

Figure 1 provides a summary of the comparative importance ratings of three stakeholder groups (hotel managers, academics and representatives of tourism-related institutions) across nine criteria. As can be see in the figure, all three groups assigned relatively higher weights to service quality dimensions (C1–C5) as compared to other criteria. In particular, the "reliability" criterion (C2) was the most highly valued service quality dimension across all groups. The differences regarding the sustainability criteria are more pronounced. Academics demonstrated a more balanced approach to environmental and cultural sustainability, assigning weights to these dimensions comparable to those given to service quality criteria. While hotel managers deprioritized social sustainability (C7), tourism-related institution representatives placed less emphasis on environmental sustainability (C6).

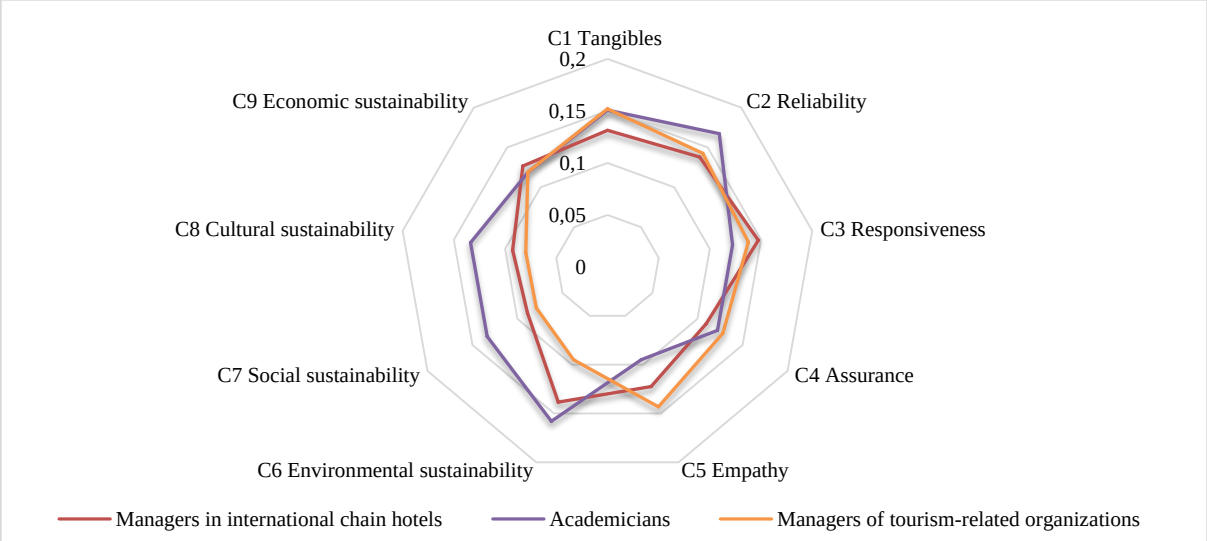

Figure 1. Comparative importance levels assigned by decision-makers to service quality and sustainability dimensions.

Overall, the observed differences suggest that the institutional structures, areas of responsibility, and decision-making dynamics of each group influence their evaluation patterns.

DISCUSSION AND CONCLUSION

The results revealed significant differences in the three main stakeholder groups' perceptions of the evaluation criteria. All three groups, consistently prioritized sustainability criteria. This finding suggests that service quality remains the primary performance indicator for hotel businesses, while sustainability elements are perceived as complementary. All groups primarily evaluated the classical SERVQUAL dimensions of service quality—namely physical elements, reliability, responsiveness, assurance, and empathy. However, each group interpreted these criteria differently based on their respective institutional contexts. For instance, hotel managers prioritized fast and enthusiastic service delivery, whereas academics emphasized accuracy and consistency of services. Meanwhile, representatives from tourism-related institutions predominantly focused on the physical aspects of service quality.

Furthermore, the results also revealed that each stakeholder group's approach to service quality varied according to their specific areas of responsibility. In this context, the Best Worst Method (BWM) provided significant advantages in analyzing the multi-stakeholder structure due to its requirement for fewer comparisons and its ability to ensure high decision consistency compared to traditional methods.

Specifically, the used method proved to be functional for the hospitality and tourism field by preventing judgment inconsistencies commonly encountered in techniques such as AHP, as well as by allowing a clear comparison of the priorities of each stakeholder group. The BWM enabled making clear comparisons of the weights assigned to the criteria by managers, academics, and institutional representatives, making the decision support process more transparent.

The results also highlighted pronounced distinctions among the three groups. These differences should be evaluated not only as statistical outcomes, but also within the framework of each stakeholder group's institutional role and sectoral responsibilities. First, academics assigned high importance to environmental sustainability and evaluated the cultural and social sustainability dimensions with a relatively more balanced perspective. This indicates that the academic approach tends to view sustainability from a multi-dimensional perspective and reflects a more normative, long-term outlook. By contrast, although hotel managers also considered environmental sustainability in their evaluations, they assigned lower priority to the social and cultural dimensions during decision-making processes.

This tendency can be interpreted as a result of environmental issues being more easily measurable and thus more applicable within practice-oriented management approaches. In their turn, institutional representatives generally placed sustainability criteria behind service quality elements, attributing the lowest levels of importance particularly to social and cultural sustainability dimensions. This finding indicates that this group of stakeholders has not yet successfully transformed the concept of sustainability into a practical policy tool.

Table 7. Prioritization of criteria according to stakeholder groups

Criterion	Hotel Managers	Academicians	Institution Representatives
Highest Priority	C3 (Responsiveness)	C2 (Reliability)	C1 (Tangibles)
Lowest Priority	C7 (Social Sust.)	C5 (Empathy)	C7 (Social Sust.)
Sustainability	Environmental focused	Balanced approach	Lower level
Service Quality	Operation focused	Systematic & technical	Physical & tangible

Furthermore, more personalized service dimensions, such as empathy, were assigned relatively lower importance by the academic group, reflecting an approach grounded in analytical and objective values. Conversely, the prominence of the empathy dimension among the other two groups that are more engaged in direct customer interaction suggests that this criterion holds a greater relevance in practical field applications. When evaluated overall (Table 7), it becomes clear that stakeholder groups' perceptions of service quality and sustainability concepts are shaped by their positions within the industry, their areas of responsibility, and their roles in decision-making processes.

These differences highlight the need to adopt multi-stakeholder approaches for the holistic management of service delivery. The findings also demonstrate that service quality and sustainability goals are not mutually exclusive priorities, but rather objectives that must be carefully balanced to achieve effective outcomes.

In this study, the finding that all stakeholder groups prioritize service quality criteria over sustainability criteria aligns with the established influence of the SERVQUAL model within the tourism industry. Specifically, Parasuraman et al. (1988) and Ladhari (2009) emphasized the significant impact of service quality on customer satisfaction, particularly highlighting the dimensions of "reliability," "speed," and "physical environment" as critical determinants in the hotel industry. The evaluations of the three stakeholder groups regarding service quality in the present study are broadly consistent with this framework. Specifically, the high importance placed by hotel managers "fast service" and "reliability" aligns with the short-term, customer satisfaction-oriented management approach described by Pirani & Arafat (2016). Similarly, the concern that such a focus might overshadow sustainability practices also aligns with the criticisms previously raised in the literature.

Furthermore, the finding that academics prioritize environmental sustainability while assigning slightly a greater importance to social and economic sustainability aligns with the Triple Bottom Line (TBL) framework proposed by Elkington (1997). TBL advocates for the simultaneous consideration of environmental, social, and economic dimensions. In the present study, the observed relatively balanced evaluation of these three dimensions by academics is consistent with the theoretical foundation of the TBL approach. Furthermore, the positive attitude of academics towards social and cultural sustainability dimensions corresponds with the emphasis on social contribution and cultural heritage

sensitivity highlighted in studies such as Boswell (2023) and Tavakoli & Turner (2024). However, while Boswell (2023) drew attention to the frequent neglect of cultural sustainability within the tourism industry, the academics interviewed in the present study prioritized this dimension more highly than the other groups. In addition, the finding that the "empathy" criterion was assigned lower priority by the academic group indicates that the emotional dimensions of service quality tend to remain secondary in academic evaluations. This detail may offer a critical and original contribution to existing generalizations suggesting that the "empathy" criterion is universally perceived as important across all stakeholders in current SERVQUAL applications (Ranatunga et al., 2022; Temory, 2024).

Yet, while the findings clearly reveal different prioritization patterns across the three stakeholder groups, they also reflect some limitations in how sustainability is conceptualized in hotel businesses.

The systematic low prioritization of social and cultural sustainability dimensions may indicate a lack of either awareness of these areas or of concrete frameworks for their implementation. On the other hand, the high importance assigned to service quality suggests that decision-making is still dominated by a short-term performance-orientated perspective, which may result in long-term sustainability goals taking a back seat. Although the findings are consistent with sectoral realities, they suggest that the concept of sustainability is narrowly framed, which may be limiting in terms of innovation and adaptation to environmental changes. Therefore, the present results should be interpreted with caution, especially considering the national context and sample structure of the study.

One of the original findings of this study is the systematic low prioritization of sustainability dimensions—particularly social and cultural sustainability—by hotel managers and public institution representatives. Although the literature strongly emphasizes the importance of all three dimensions of sustainability (e.g., Elkington, 1997; Christofi et al., 2022; Pereira et al., 2021), our finding that the practical importance attributed to social and cultural sustainability remains low highlights a gap that has not been sufficiently addressed in previous research. Moreover, the observation that public institutions and tourism-related organizations assign a lower priority to environmental sustainability as compared to other groups contradicts the corporate responsibility-focused evaluations commonly found in the literature. For instance, while Fatima & Elbanna (2023) argued that sustainable performance management should be a central focus of institutional structures, our finding that representatives from public institutions in this study de-emphasize environmental sensitivity constitutes an important original contribution to the field.

Another unique contribution of the present study is the simultaneous comparative analysis of different stakeholder groups. Such comparative studies are relatively limited in the literature. For example, while Oliveras-Villanueva et al. (2020) and Zhuk & Bukhta (2023) focused specifically on hotel managers or customers, they did not offer a direct comparison of prioritization among academics, public sector representatives, and industry professionals.

In this regard, the present study provides an innovative contribution to the literature and provides a concrete example of applying the multi-stakeholder analysis approach advocated by Stakeholder Theory (Freeman, 2010).

Practical Implications

The findings of this study reveal that, while service quality remains the primary priority for hotel businesses, environmental sustainability is gaining increasing importance. Accordingly, hotel managers must integrate environmental sustainability principles into their operational processes while simultaneously ensuring customer satisfaction. Furthermore, our observation that academics adopt a more balanced approach to sustainability highlights the need to facilitate the transfer of academic knowledge into industrial practices. In addition, the neglect of social and cultural sustainability dimensions by hotel managers and institutional representatives underscores the urgent need to implement awareness-raising initiatives, training programs, and strategic guidance in these areas. Similarly, the integration of sustainability criteria into policy documents and implementation guidelines by public institutions could support the sector-wide institutional transformation process. Finally, considering the varying prioritization approaches among different stakeholder groups regarding service quality and sustainability, the long-term success of the hotel industry requires further development of multi-stakeholder and inclusive decision-making mechanisms.

Further Research

The results of the present study revealed significant differences in the service quality and sustainability priorities among different stakeholder groups. However, our sample was limited to a small number of expert groups operating in Turkey. Accordingly, future studies could enhance the generalizability of the findings by employing larger and more representative samples from various geographical regions. Moreover, this study included only expert opinions, excluding the customer perspective. Incorporating evaluations from service recipients in future research could enable more comprehensive, multi-dimensional analyses. Another venue of further research could be using qualitative data collection methods, such as focus group discussions or in-depth interviews, which would offer more profound insights into how stakeholders interpret sustainability within decision-making processes. In addition, future research should consider the influence of dynamic environmental variables—such as crisis periods or post-pandemic developments—on the balance between service quality and sustainability. Finally, the comparative application of alternative multi-criteria decision-making methods would contribute to the literature by promoting methodological diversity.

Limitations

The present study has several limitations. First, the relatively small sample size (n = 18) that we used may limit the generalizability of our results. Second, considering that the present study was limited to the context of Turkey, our

conclusions may not generalize to other cultural contexts. Thirdly and finally, we did not analyze the views of hotel customers as important stakeholders at the center of the service experience. Accordingly, in future studies, our research design could be extended to larger and more versatile samples and to a broader range of stakeholder groups.

Author Contributions: Author Contributions: Conceptualization, A.Ü.; methodology, A.Ü.; software, A.Ü.; validation, A.Ü.; formal analysis, A.Ü.; investigation, A.Ü.; data curation, A.Ü.; writing - original draft preparation, A.Ü.; writing - review and editing, A.Ü.; visualization, A.Ü.; supervision, A.Ü.; project administration, A.Ü. The author have read and agreed to the published version of the manuscript.

Funding: Not applicable.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data presented in this study may be obtained on request from the corresponding author.

Acknowledgements: The research undertaken was made possible by the scientific involvement of the author concerned.

Conflicts of Interest: The author declare no conflict of interest.

REFERENCES

Abdullah, M. F., Khan, N. R. M., & Ibrahim, M. A. (2022). Exploring the influence of SERVQUAL dimensions of reliability, responsiveness and assurance towards consumers loyalty: The mediating effect of commitment-trust relationship marketing theory. *International Journal of Academic Research in Business and Social Sciences*, 12(11), 1580 – 1591.

Adzinyo, O., Dzansi, D. Y., & Strydom , A. J. (2024). Service quality facets and hotel customer retention in Ghana: Evidence from the Volta Region. *International Journal of Research in Business and Social Science*, 13(2), 72-83. https://doi.org/10.20525/ijrbs.v13i2.3162

Amiri, M., Hashemi-Tabatabaei, M., Ghahremanloo, M., Keshavarz-Ghorabaee, M., Kazimieras Zavadskas, E., & Antucheviciene, J. (2021). A novel model for multi-criteria assessment based on BWM and possibilistic chance-constrained programming. *Computers & Industrial Engineering*, 156, 107287. https://10.1016/j.cie.2021.107287

Baratta, R., & Simeoni, F. (2021). Food is good for you (and the planet): Balancing service quality and sustainability in hospitality. *Sinergie Italian Journal of Management*, 39(1), 193-213. https://doi.org/10.7433/S114.2021.11

Bhattacharya, P., Mukhopadhyay, A., Saha, J., Samanta, B., Mondal, M., Bhattacharya, S., & Paul, S. (2023). Perception-satisfaction based quality assessment of tourism and hospitality services in the Himalayan region: An application of AHP-SERVQUAL approach on Sandakphu Trail, West Bengal, India. *International Journal of Geoheritage and Parks*, 11(2), 259-275. https://doi.org/10.1016/j.ijgeop.2023.04.001

Blanco-Moreno, S., Aydemir-Dev, M., Santos, C. R., & Bayram-Arlı, N. (2025). Emerging sustainability themes in the hospitality sector: A bibliometric analysis. *European Research on Management and Business Economics*, 31(1), 100272. https://doi.org/10.1016/j.iedeen.2025.100272

Boswell, R. (2023). Sensory ecofeminism for heritage, tourism, and sustainability in Mauritius. *Sustainability*, 15(13), 10426. https://doi.org/10.3390/su151310426

Campos, F., Gomes, C., Malheiros, C., & Lima Santos, L. (2024). Hospitality environmental ındicators enhancing tourism destination sustainable management. *Administrative Sciences*, 14(3), 42. https://doi.org/10.3390/admsci14030042

Chaudhary, S., & Dey, A. K. (2021). Influence of student-perceived service quality on sustainability practices of university and student satisfaction. *Quality Assurance in Education*, 29(1), 29–40. https://doi.org/10.1108/QAE-10-2019-0107

Christofi, M., Vrontis, D., Shams, R., Belyaeva, Z., & Czinkota, M. R. (2022). Sustained Competitive Advantage for Sustainable Hospitality and Tourism Development: A Stakeholder Causal Scope Analysis. *Journal of Hospitality & Tourism Research*, 46(5), 823-825. https://doi.org/10.1177/10963480221091976

Corrente, S., Greco, S., & Rezaei, J. (2024). Better decisions with less cognitive load: The Parsimonious BWM. *Omega*, 126, 103075. https://doi.org/10.1016/j.omega.2024.103075

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160. https://doi.org/10.2307/2095101

Donaldson, L. (2001). *The contingency theory of organizations.* Thousand Oaks, CA: Sage Publications.

Du, F., Zou, D., & Hu, J. (2025). Optimal contract choice in sustainable tourism supply chain when environmental consumers exist. *SAGE Open*, 15(1). https://doi.org/10.1177/21582440241309982

Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Oxford: Capstone Publishing.

Fam, K. S., Liat Cheng, B., Cham, T. H., Tan Chia Yi, M., & Ting, H. (2021). The role of cultural differences in customer retention: Evidence from the high-contact service industry. *Journal of Hospitality & Tourism Research*, 47(1), 257-288. https://doi.org/10.1177/10963480211014944

Fatima, T., & Elbanna, S. (2023). Advancing sustainable performance management in the hospitality industry: A novel framework based on a health-inclusive balanced scorecard. *Tourism Management Perspectives*, 48, 101141. https://doi.org/10.1016/j.tmp.2023.101141

Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge university press.

Garabinović, D., Papić, M., & Kostić, M. (2021). Multi-criteria decision making trends in ecotourism and sustainable tourism. *Economics of Agriculture (Ekonomika poljoprivrede)*, 2, 321–340. https://doi.org/10.5937/ekoPolj2102321G

Hasan M. G., Ashraf Z., & Khan M. F. (2022) Multi-choice best-worst multi-criteria decision-making method and its applications. *International Journal of Intelligent Systems*, 37, 1129-1156. https://doi.org/10.1002/int.22663

Hoo, M., Madhavedi, B. P., & Huong, L. T. H. (2024). Customer satisfaction through service quality: A case study of perishable goods e-commerce in Malaysia. *Journal of Infrastructure, Policy and Development*, 8(15), 8791. https://doi.org/10.24294/jipd8791

Johny, D., Padhi, S. S., & Cheng, T. C. E. (2025). Drone selection for disaster responses: An application of the stratified-best-worst method. *Management Decision*. (Advance online publication). https://doi.org/10.1108/MD-07-2024-1658

Josimović, M., Ćoćkalo, D., Osmanović, S., Cvjetković, M., & Radivojević, N. (2025). The influence of competitiveness factors on sustainable business performance in the hotel industry: From the perspective of the perception of hotel service users. *Sustainability*, 17(5), 2277. https://doi.org/10.3390/su17052277

Khalil, N., Che Abdullah, S. N., Haron, S. N., & Hamid, M. Y. (2024). A review of green practices and initiatives from stakeholder's perspectives towards sustainable hotel operations and performance impact. *Journal of Facilities Management*, 22(4), 653–682. https://doi.org/10.1108/JFM-03-2022-0025

Koch, J., Gerdt, S. O., & Schewe, G. (2020). Determinants of sustainable behavior of firms and the consequences for customer satisfaction in hospitality. *International Journal of Hospitality Management*, 89, 102515. doi:10.1016/j.ijhm.2020.102515

Kumar, R., & Pamucar, D. (2025). A comprehensive and systematic review of Multi-Criteria Decision-Making (MCDM) methods to solve decision-making problems: Two decades from 2004 to 2024. *Spectrum of Decision Making and Applications*, 2(1), 178-197. https://doi.org/10.31181/sdmap21202524

Kwan, M. (2025). Sustainable hospitality practices and the impact of personalized guest experience: A case study of Sheraton Guangzhou Nansha Hotel. Gulf Journal of Advance Business Research, 3(1), 15-19. https://doi.org/10.51594/gjabr.v3i1.63

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, 1(2), 172–198. https://doi.org/10.1108/17566690910971445

Lawrence, P. R., & Lorsch, J. W. (1967). *Organization and environment: Managing differentiation and integration*. Boston: Harvard Business School Press.

Lee, W., & Chhabra, D. (2015). Heritage hotels and historic lodging: perspectives on experiential marketing and sustainable culture. *Journal of Heritage Tourism*, 10(2), 103–110. https://doi.org/10.1080/1743873X.2015.1051211

Lichtenthaler, U. (2022). Explicating a sustainability-based view of sustainable competitive advantage. *Journal of Strategy and Management*, 15(1), 76–95. https://doi.org/10.1108/JSMA-06-2021-0126

Michailidou, A. V., Vlachokostas, C., & Moussiopoulos, N. (2015). A methodology to assess the overall environmental pressure attributed to tourism areas: A combined approach for typical all-sized hotels in Chalkidiki, Greece. *Ecological Indicators*, 50, 108–119. https://doi.org/10.1016/j.ecolind.2014.11.006

Munawaroh, N. A., Mukhlis, I., & Zagladi, A. N. (2024). What do we know about customer satisfaction in the hospitality and tourism industry? The glimpse from a bibliometric analysis. *Journal of Management, Accounting, General Finance and International Economic Issues*, 3(2), 388–409. https://doi.org/10.55047/marginal.v3i2.944

Narendratama, R. P., & Wijoyo, T. A. (2025). Enhancing guest satisfaction through human resource quality and hotel facilities: A strategic approach. *International Journal of Management and Business Intelligence*, 3(1) 1-14. https://doi.org/10.59890/ijmbi.v3i1.285

Njoroge, M., Anderson, W., & Mbura, O. (2020). Innovation strategy and economic sustainability in the hospitality industry. *The Bottom Line*, 32(4), 253–268. https://doi.org/10.1108/BL-03-2019-0080

Oliveras-Villanueva, M., Llach, J., & Perramon, J. (2020). Service quality in hospitality and the sustainability effect: Systematic literature review and future research agenda. *Sustainability*, 12(19), 8152. https://doi.org/10.3390/su12198152

Oloyede, A. O., Adam, R. O., Adebusoye, M. S., Kareem, B. R., Lameed, A. A., & Akinola, F. M. (2024). Influence of dietary habits and service quality on nutritional satisfaction in urban Ibadan's hospitality sector. *Toros University Journal of Food, Nutrition and Gastronomy*, 3(2), 181–195. https://doi.org/10.58625/jfng-2670

Opricovic, S., & Tzeng, G. H. (2007). Extended VIKOR method in comparison with outranking methods. *European Journal of Operational Research*, 178(2), 514–529. https://doi.org/10.1016/j.ejor.2006.01.020

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.

Pereira, V., Silva, G. M., & Dias, Á. (2021). Sustainability practices in hospitality: Case study of a luxury hotel in Arrábida Natural Park. *Sustainability*, 13(6), 3164. https://doi.org/10.3390/su13063164

Pereira-Moliner, J., Pertusa-Ortega, E. M., Tarí, J. J., López-Gamero, M. D., & Molina-Azorín, J. F. (2016). Organizational design, quality management and competitive advantage in hotels. *International Journal of Contemporary Hospitality Management*, 28(4), 762–784. https://doi.org/10.1108/IJCHM-10-2014-0545

Perramon, J., Oliveras-Villanueva, M., & Llach, J. (2022). Impact of service quality and environmental practices on hotel companies: An empirical approach. *International Journal of Hospitality Management*. 107, 103307. https://doi.org/10.1016/j.ijhm.2022.103307

Pirani, S. I., & Arafat, H. A. (2016). Reduction of food waste generation in the hospitality industry. *Journal of Cleaner Production*, 132, 129–145. doi:10.1016/j.jclepro.2015.07146

Prakash, S., Sharma, V. P., Singh, R., Vijayvargy, L., & Nilaish. (2023). Adopting green and sustainable practices in the hotel industry operations: An analysis of critical performance indicators for improved environmental quality. *Management of Environmental Quality: An International Journal*, 34(4), 1057–1076. https://doi.org/10.1108/MEQ-03-2022-0090

Pratt, S., Suntikul, W., & Dorji, U. (2018). Economic sustainability? Examining the linkages and leakages between agriculture and hotels in Bhutan. *International Journal of Tourism Research*, 20(5), 626–636. https://doi.org/10.1002/jtr.2211

Preziosi, M., Acampora, A., Lucchetti, M. C., & Merli, R. (2022). Delighting hotel guests with sustainability: Revamping importance-performance analysis in the light of the three-factor theory of customer satisfaction. *Sustainability*, 14(6), 3575. https://doi.org/10.3390/su14063575

Ranatunga, R. A. D. D. N., Bandara, W. M. A. H., Pattiyagedara, P. G. S. S., & Gangananda, A. M. N. M. (2022). Investigating the impact of SERVQUAL dimensions on customer satisfaction: Evidence from outbound travelers in Sri Lanka. *International Journal of Scientific and Research Publications (IJSRP)*, 12(10), 2250-3153. https://doi.org/10.29322/IJSRP.12.10.2022.p13064

Rasel, M A. B. (2024). Navigating sustainability in the tourism and hospitality industry: Transformation under the ınfluence of climatic challenges. *SocioEconomic Challenges*, 8(4), 112-120. https://doi.org/10.61093/sec.8(4).112-120.2024

Remenyik, B., Szőke, B., Veres, B., & Dávid, L. D. (2025). Innovativesustainability practices in ecotourismand the hotel industry: Insights intocircular economy and communityintegration. *Journal of Infrastructure, Policy and Development*, 9(1), 10946. https://doi.org/10.24294/jipd10946

Rezaei, J. (2015). Best-worst multi-criteria decision-making method. *Omega*, 53, 49–57. https://10.1016/j.omega.2014.11.009

Rinomhota, A., Mhonda, L., Dengedza, M., Chimbuya, M., Badza, R. S., & Shonhiwa, N. (2025). The challenges of integrating sustainable practices in hotels and lodges: A case study of Victoria Falls. *International Journal of Business & Management Studies*, 6(2), 109-128. https://doi.org/10.56734/ijbms.v6n2a8

Salama, W. S. M., Khairy, H., Badwy, H. E., Almaaitah, R. A., Mohammed, S. A., & Elsokkary, H. H. K. A. (2024). Sustainable leadership and work behavior in hotel businesses: The influence of perceived environmental corporate social responsibility. *Environment and Social Psychology*, 9(11). https://doi.org/10.59429/esp.v9i11.3251

Seidel, S., Vrenegoor, F., & Cavagnaro, E. (2021). Sustainable behaviour in tourism and hospitality. *Scandinavian Journal of Hospitality and Tourism*, 21(5), 471–474. https://doi.org/10.1080/15022250.2021.1984986

Seyfi, S., Michael Hall, C., & Strzelecka, M. (2025). Gen Z – pioneers or paradox in sustainable tourism? *Journal of Sustainable Tourism*, 1–29. https://doi.org/10.1080/09669582.2025.2491702

Shams, G., Rather, R., Rehman, M. A., & Lodhi, R. N. (2021). Hospitality-based service recovery, outcome favourability, satisfaction with service recovery and consequent customer loyalty: An empirical analysis. I*nternational Journal of Culture, Tourism and Hospitality Research*, 15(2), 266–284. https://doi.org/10.1108/IJCTHR-04-2020-0079

Shyju, P. J., Singh, K., Kokkranikal, J., Bharadwaj, R., Rai, S., & Antony, J. (2021). Service quality and customer satisfaction in hospitality, leisure, sport and tourism: An assessment of research in Web of Science. *Journal of Quality Assurance in Hospitality & Tourism*, 24(1), 24–50. https://doi.org/10.1080/1528008X.2021.2012735

Sholeha, A. W., & Sumarmi, S. (2025). Managing sustainable tourism of Perawan Beach, East Java, Indonesia based on the coastal ecosystem service (CES) approach. *Geojournal of Tourism and Geosites*, 58(1), 78–88. https://doi.org/10.30892/gtg.58107-1392

Smith, A. M. (1995). Measuring service quality: Is SERVQUAL now redundant? *Journal of Marketing Management*, 11(1–3), 257–276. https://doi.org/10.1080/0267257X.1995.9964341

Stombelli, V. M. (2020). Corporate social responsibility in hospitality: Are sustainability initiatives really sustainable? Case examples from CitizenM, Lefay and Six Senses. *Worldwide Hospitality and Tourism Themes*, 12(5), 525–545. https://doi.org/10.1108/WHATT-06-2020-0041

Su, C., & Chen, C. (2020). Does sustainability index matter to the hospitality industry? *Tourism Management*, 81, 104158. https://doi.org/10.1016/j.tourman.2020.104158

Tavakoli, S., & Tumer, E. U. (2024). Authenticity- and sustainability-based failure prevention in the post-conservation life of reused historic houses as tourist Hotels: Award-winning projects from Isfahan city. *Sustainability*, 16(16), 6820. https://doi.org/10.3390/su16166820

Temory, M. D. (2024). The effect of service quality on customer satisfaction and loyalty: A Case study of hotel ındustry in Afghanistan, *International Journal of Business and Management Review*, 12 (5), 21-36.

Tian, Z. P., Liang, H. M., Nie, R. X., & Wang, J. Q. (2022). An integrated multi-granular distributed linguistic decision support framework for low-carbon tourism attraction evaluation. *Current Issues in Tourism*, 26(6), 977–1002. c

Timur, S., & Timur, A. T. (2016). Employee ownership and sustainable development in tourism: A case in North Cyprus. *Sustainable Development*, 24: 89–100. https://doi.org/10.1002/sd.1610

Tourais, P., & Videira, N. (2024). Sustainability transition strategies in a business context: A co-creation process in the Portuguese hospitality sector. *Corporate Social Responsibility and Environmental Management*, 31(1), 600–628. https://doi.org/10.1002/csr.2588

Vagiona, D. G. (2021). Comparative multi-criteria analysis methods for ranking sites for solar farm deployment: A case study in Greece. *Energies*, 14(24), 8371. https://doi.org/10.3390/en14248371

Vasilakakis, K., Tabouratzi, E., & Sdrali, D. (2023). Economic sustainability of tourism enterprises: a proposal of criteria in the hotels. *International Journal of Professional Business Review*, 8(4), e01769. https://doi.org/10.26668/businessreview/2023.v8i4.1769

Vatankhah, S., Darvishmotevali, M., Rahimi, R., Jamali, S. M., & Ale Ebrahim, N. (2023). Assessing the application of multi-criteria decision making techniques in hospitality and tourism research: A bibliometric study. *International Journal of Contemporary Hospitality Management*, 35(7), 2590–2623. https://doi.org/10.1108/IJCHM-05-2022-0643

Wang, T., & Nguyen, H. (2022). Evaluating the sustainability of hotels using multi-criteria decision making methods. *Engineering Sustainability*, 175(3), 129-140. https://doi.org/10.1680/jensu.21.00084

Wei, X., Wang, M., Wei, Q., & Ma, X. (2025). Piping material selection in water distribution network using an improved decision support system. *Water*, 17(3), 342. https://doi.org/10.3390/w17030342

Xu, M., Bai, C., Shi, L., Puška, A., Štilić, A., & Stević, Ž. (2023). Assessment of mountain tourism sustainability using Integrated Fuzzy MCDM model. *Sustainability*, 15(19), 14358. https://doi.org/10.3390/su151914358

Yang, J. J., Chuang, Y. C., Lo, H. W., & Lee, T. I. (2020). A two-stage MCDM model for exploring the ınfluential relationships of sustainable sports tourism criteria in Taichung City. *International Journal of Environmental Research and Public Health*, 17(7), 2319. https://doi.org/10.3390/ijerph17072319

Yazdani, M., Ariza-Montes, A., Arjona-Fuentes, J. M., & Radic, A. (2024). Cruise hotel sustainable supplier management using a grey-based decision support framework. *Journal of Travel & Tourism Marketing*, 41(4), 538–558. https://doi.org/10.1080/10548408.2023.2285927

Yildirim, R. E., & Sisman, A. (2025). Spatial decision support for determining suitable emergency assembly places using GIS and MCDM techniques. *Sustainability*, 17(5), 2144. https://doi.org/10.3390/su17052144

Yu, T. Y., Horng, J. S., Liu, C. H., Chou, S. F., Lee, M. T., Huang, Y. C., & Lapuz, M. C. B. (2024). Three-way interaction and multiple mediation models: Environmental strategy and sustainability marketing commitment applications. *Asia Pacific Journal of Marketing and Logistics*, 36(4), 791–813. https://doi.org/10.1108/APJML-11-2022-0910

Yuliawati, A. K., Rofaida, R., Gautama, B. P., Millah, R. S., Aryanti, A. N., & Hadian, M. S. D. (2025). Strategies for business sustainability through digital marketing and innovation in aspiring geopark. *GeoJournal of Tourism and Geosites*, 58(1), 456–464. https://doi.org/10.30892/gtg.58142-1427

Zhuk, Y. I., & Bukhta, I. O. (2023). Hospitality and sustainable development: synergy for a successful tourism sector. *Visnyk of V. N. Karazin Kharkiv National University. Series Ecology*, (28), 112-120. https://doi.org/10.26565/1992-4259-2023-28-10

Article history: Received: 28.04.2025 Revised: 01.08.2025 Accepted: 29.08.2025 Available online: 22.09.2025